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### **Thompson**

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## (54) STRETCH MARK PREVENTION UNDERGARMENT

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

This patent is subject to a terminal dis-

claimer.

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### Related U.S. Application Data

- (63) Continuation of application No. 12/725,532, filed on Mar. 17, 2010, now Pat. No. 8,517,794.
- (51) Int. Cl.

A41D 1/22	(2006.01)
A41B 17/00	(2006.01)
A41D 1/20	(2006.01)
A41C 1/08	(2006.01)

(52) U.S. Cl.

CPC . **A41D 1/22** (2013.01); **A41B 17/00** (2013.01); **A41B 2400/38** (2013.01); **A41B 2400/82** (2013.01); **A41D 1/20** (2013.01)

(58) Field of Classification Search

CPC ......... A41C 1/00; A41C 1/003; A41C 1/006; A41C 1/02; A41C 1/04; A41C 1/08; A41C See application file for complete search history.

### (56) References Cited

### U.S. PATENT DOCUMENTS

2,765,470 A 3,080,869 A 3,752,164 A	10/1956 3/1963 8/1973	Alberts Salisky
4,506,390 A 5,613,893 A	3/1985 3/1997 (Con	Stern Zagame tinued)

### FOREIGN PATENT DOCUMENTS

CN	200959829	10/2007
EP	0988803	3/2000
ΙP	2007131973	5/2007

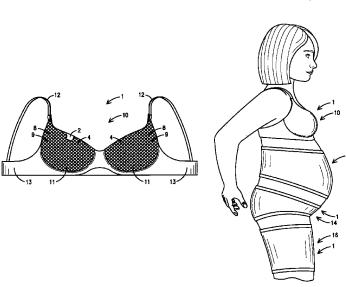
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### (57) ABSTRACT

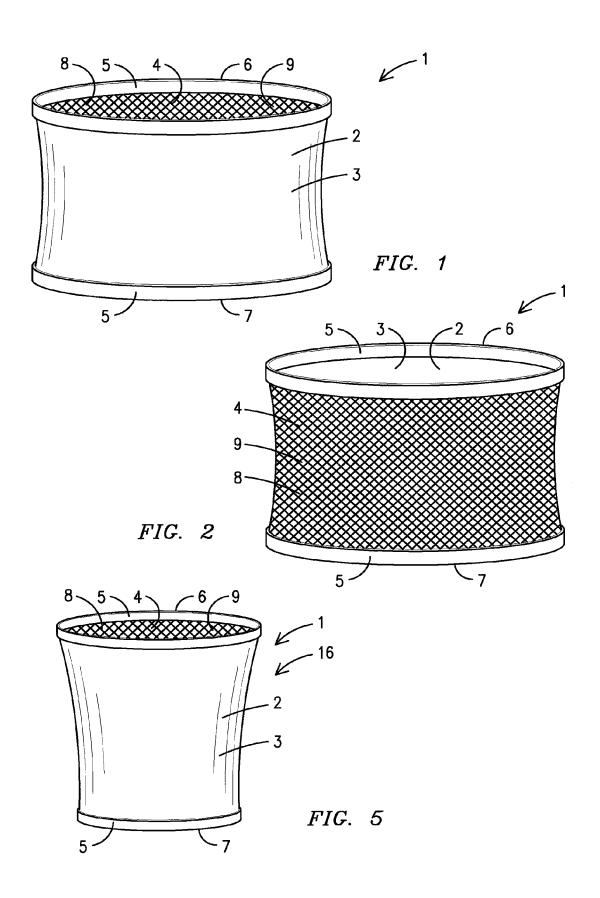
Stretch mark prevention undergarments (1) worn around a woman's abdomen, chest, lower torso, legs, buttocks and other areas for reinforcing elastic fibers in the skin and preventing stretch marks. The stretch mark prevention undergarment has an outer layer (2) made of stretchable material and an inner layer (8) of material made of a non-slip material (9). The non-slip material maintains a constant adherent traction with the skin of a wearer, thereby reinforcing elastic fibers of skin. The inner layer is arranged in a predetermined pattern or design to allow a wearer's skin to breathe through the outer layer of the stretch mark prevention undergarment. The stretch mark prevention undergarment may be in the form of underwear (14), briefs, underpants, panties, leggings (16), corsets, bras (10) or any combination thereof to help prevent stretch marks on various parts of the body.

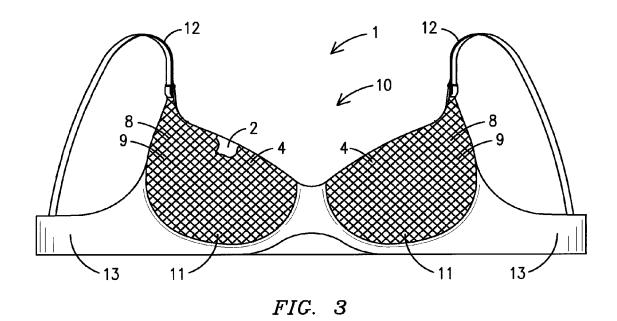
### 13 Claims, 3 Drawing Sheets



# US 9,049,892 B2 Page 2

(56)	Refe	rences Cited	7,303,539 B2*	12/2007	Binder et al 602/75
` /			7,540,850 B2*	6/2009	Guillot 602/60
	U.S. PATE	NT DOCUMENTS	7,934,507 B2*	5/2011	Brooks 128/873
			8,517,794 B2*	8/2013	Thompson 450/81
	5,897,423 A 4/19	00 Rosenberg	2003/0167028 A1*	9/2003	Binder et al 602/2
		2	2006/0129081 A1*	6/2006	Binder et al 602/60
		99 Zagame 602/52	2007/0077960 41*		Brooks 450/155
	6 332 825 B1* 12/20	01 Henricksen 450/81			
			2011/0230119_A1*	9/2011	Thompson 450/10
	6,537,132 B1 3/20	03 Alberts	2011/0230115 111	3,2011	Thempsen 150/10
	6.548.728 B1* 4/20	03 Faries et al 602/42	* cited by examiner		





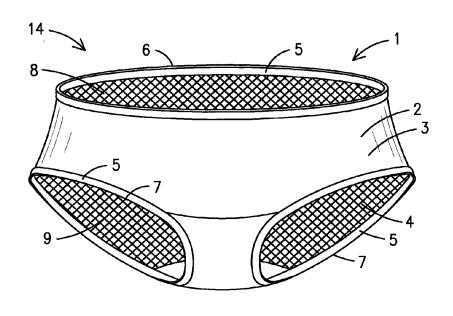


FIG. 4

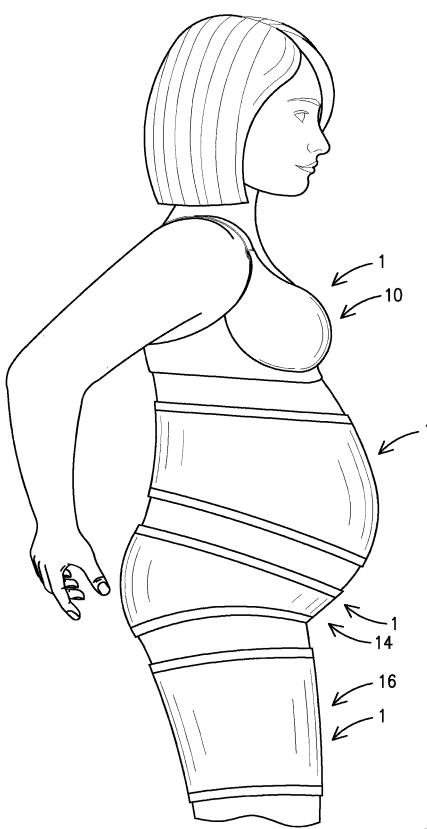


FIG. 6

### 1 STRETCH MARK PREVENTION UNDERGARMENT

## CROSS REFERENCE TO RELATED APPLICATIONS

This is a continuation of application Ser. No. 12/725,532, filed Mar. 17, 2010, which issued as U.S. Pat. No. 8,517,794 on Aug. 27, 2013.

### BACKGROUND OF THE INVENTION

This invention relates to stretch marks caused during pregnancy, more particularly, to an undergarment that may be worn around the abdomen and other areas of a pregnant woman that reinforces the elastic fibers of the skin around the expanding abdomen.

Many women develop stretch marks on their abdomens, chests, legs, buttocks and other areas during pregnancy. Stretch marks are caused by the growth of the baby and rapid  $\ ^{20}$ expansion of the skin around these areas. Factors that contribute to stretch marks include the age of the woman, the size of the baby, being pregnant with multiple babies and weight gained during pregnancy. Stretch marks are caused by tears or breakage of elastic fibers within the dermis. This commonly  $^{25}$ occurs as a chain reaction, wherein one elastic fiber rips causing nearby elastic fibers to rip. These multiple rips occur in a line which is visible from the exterior of the skin as a stretch mark. The amount of elastic fibers in a women's skin depends on a women's age. For example, an eighteen year old  $^{30}$ girl will be more susceptible to stretch marks as she will have already stretched the fibers in her skin to near the breaking point. This is because she has just gone through growth spurts as a result of puberty and the skin has not had time to recover or reinforce itself. However, older women will have more time for the fibers to repair themselves and will therefore be less susceptible to stretch marks because their skin is reinforced. Many women have significantly more elastic fibers in their skin due to genetic factors. This is why some women get little or no stretch marks during pregnancy while others get 40 severe stretch marks with the same size baby and same weight

Currently, many pregnant women apply lotions and topical ointments to their skin as a preventative measure against stretch marks. However, lotions and topical ointments do not actually address the cause of stretch marks because they provide no reinforcement to prevent the skin's elastic fibers from ripping. Furthermore, many of these lotions and topical ointments contain Vitamin-E, which research has shown to be linked to birth defects. Also, creams and lotions only moisten the outer epidermis and do not reach or support the dermis where the stretch marks occur. Other panty hose garments or body shaping garments claim to reduce stretch marks. However, garments such as these only apply pressure on the skin and do not reinforce the elastic fibers found in the dermis.

Therefore, a need exists for a device for reinforcing the skin of pregnant women, thereby preventing the ripping of elastic fibers in the skin and resulting stretch marks.

The relevant prior art includes the following references:

Patent No. (U.S. unless stated otherwise)	Inventor	Issue/Publication Date
CN200959829	Ma	Oct. 17, 2007
JP2007131973	Kureya	May 31, 2007
6,537,132	Alberts	Mar. 25, 2003

### 2 -continued

Patent No. (U.S. unless stated otherwise)	Inventor	Issue/Publication Date
EP0988803	Sano	Mar. 29, 2000
5,897,423	Rosenberg	Apr. 27, 1999
5,613,893	Zagame	Mar. 25, 1997
4,506,390	Stern	Mar. 26, 1985
3,752,164	Salisky	Aug. 14, 1973
3,080,869	Alberts	Aug. 12, 1963
2,765,470	Read	Oct. 09, 1956

### SUMMARY OF THE INVENTION

The primary object of the present invention is to provide a stretch mark prevention undergarment that prevents the formation of stretch marks by reinforcing the elastic fibers of the skin.

Another object of the present invention is to provide a stretch mark prevention undergarment that is breathable and comfortable to wear.

An even further object of the present invention is to provide a stretch mark prevention undergarment that will prevent stretch marks from forming on the abdomen and lower torso of a wearer.

Another object of the present invention is to provide a stretch mark prevention undergarment that will prevent stretch marks from forming on the breasts of a wearer.

An even further object of the present invention is to provide a stretch mark prevention undergarment that will prevent stretch marks from forming on the buttocks and pelvis area of a wearer.

Another object of the present invention is to provide a stretch mark prevention undergarment that will prevent stretch marks from forming on upper leg and thigh of a wearer.

The present invention fulfills the above and other objects by providing an undergarment worn around a woman's belly for preventing stretch marks. The undergarment has an outer layer made of smooth, stretchable, non-adherent and breathable material, such as spandex, and an inner layer of material made of a stretchable non-slip material, such as silicone, rubber, etc. The non-slip material maintains a constant adherent traction with the skin, thereby reinforcing the skin from the outside to prevent the skin from stretching apart. Any predetermined pattern or design on an inner surface of the inner layer that allows the skin to breath through the outer layer of the garment and prevents the skin from stretching could be employed. Alternative embodiments of the undergarment include panties, briefs, bands, leggings, corsets, bras or combinations thereof to help prevent stretch marks and provide support.

The above and other objects, features and advantages of the present invention should become even more readily apparent to those skilled in the art upon a reading of the following detailed description in conjunction with the drawings wherein there is shown and described illustrative embodiments of the invention.

### BRIEF DESCRIPTION OF THE DRAWINGS

In the following detailed description, reference will be made to the attached drawings in which:

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FIG. 1 is a front perspective view of an abdominal stretch mark prevention undergarment of the present invention;

FIG. 2 is a front perspective view of an abdominal stretch mark prevention undergarment of the present invention that has been turned inside-out;

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FIG. 3 is a rear view of a stretch mark prevention undergarment of the present invention in the form of a bra;

FIG. 4 is a front view of a stretch mark prevention undergarment of the present invention in the form of underwear:

FIG. 5 is a front view of a stretch mark prevention undergarment of the present invention in the form of a legging; and

FIG. 6 is a side view of multiple stretch mark prevention undergarments of the present invention being worn.

### DESCRIPTION OF THE PREFERRED **EMBODIMENTS**

For purposes of describing the preferred embodiment, the terminology used in reference to the numbered accessories in the drawings is as follows:

- 1. undergarment
- outer laver
- 3. outer surface
- 4. inner surface
- 5. elastomeric band
- 6. upper edge
- 7. lower edge
- 8. inner layer
- 9. non-slip material
- 10. bra
- 11. cup
- 12. shoulder strap
- 13. rear strap
- 14. underwear
- 15. leg hole
- legging

With reference to FIGS. 1 and 2, in which views of an abdominal stretch mark prevention undergarment 1 of the present invention is shown. The undergarment 1 is substan- 35 tially tubular in shape and has an outer layer 2 having an outer surface 3 and an inner surface 4. The outer layer 2 is made of stretchable breathable material, such as Lycra, spandex, etc. Elastomeric bands 5 are located along an upper edge 6 and a lower edge 7 of the undergarment 1. The elastomeric bands 5 40 assist in keeping the undergarment 1 in place while being around the lower torso of a wearer, as shown further in FIG. 6. An inner layer 8 made of a non-slip material 9, such as silicone, rubber etc. in located on the inner surface 4 of the outer layer 2 of the undergarment 1. The inner layer 8 could be 45 arranged in a webbed fishnet, diamond-shaped or any pattern that would allow the skin to breathe and due to the non-slip material 9 of the inner layer 8 would maintain a constant adherent traction with the skin of the wearer, thereby preventing the skin around the body from stretching apart and the 50 elastic fibers of the skin from tearing.

With reference to FIG. 3, a rear view of a stretch mark prevention undergarment 1 of the present invention in the form of a bra 10 is shown. The undergarment 1 is a bra 10 having cups 11 for supporting the breasts of a wearer. The 55 cups 11 have an outer layer 2 with an outer surface 3 and an inner surface 4. The outer layer 2 is made of stretchable breathable material, such as spandex. An inner layer 8 made of a non-slip material 9, such as silicone, rubber, etc., is located on the inner surface 4 of the outer layer 2 of the 60 undergarment 1. The inner layer 8 is arranged in a predetermined pattern or design to allow the wearer's skin to make contact with both the inner layer 8 and the outer layer 2 of the undergarment 1, thereby allowing the skin to breathe. The non-slip material 9 of the inner layer 8 maintains a constant 65 adherent traction with the skin of the wearer, thereby preventing the skin around the breasts from stretching apart and the

elastic fibers of the skin from tearing. The outer layer 2 comprises a smooth non-adherent material that will not adhere to outer clothing, thereby allowing the outer clothing to lie smoothly against the stretch mark prevention undergarment 1. Shoulder straps 12 connect the upper portion of the cups 11 to rear straps 13 assist in keeping the undergarment 1 in place while being around the upper torso of a wearer, as shown further in FIG. 6.

With reference to FIG. 4, a front view of a stretch mark 10 prevention undergarment 1 of the present invention in the form of underwear 14 is shown. The undergarment 1 is a pair of underwear 14 or panties having an outer layer 2 with an outer surface 3 and an inner surface 4. The outer layer 2 is made of stretchable breathable material, such as spandex, that is smooth and non-adherent so as to not adhere to outer clothing. Elastomeric bands 5 are located along an upper edge 6 and lower edges 7 of the undergarment 1. The lower edges 7 form leg holes 15. The elastomeric bands 5 assist in keeping the undergarment 1 in place while being around the pelvis area of a wearer, as shown further in FIG. 6. An inner layer 8 made of a non-slip material 9, such as silicone, rubber etc. in located on the inner surface 4 of the outer layer 2 of the undergarment 1. The inner layer 8 is preferably arranged in a predetermined pattern or design of non-slip material 9 to allow the wearer's skin to make contact with both the inner layer 8 and the outer layer 2 of the undergarment 1, thereby allowing the skin to breathe. The non-slip material 9 of the inner layer 8 maintains a constant adherent traction with the skin of the wearer, thereby preventing the skin around the pelvis area and buttocks from stretching apart and the elastic fibers of the skin from tearing. The outer layer 2 is smooth and non-adherent, thereby not adhering to outer clothing.

With reference to FIG. 5, a front view of a stretch mark prevention undergarment 1 of the present invention in the form of a legging 16 is shown. The undergarment 1 is substantially tubular in shape and has an outer layer 2 having an outer surface 3 and an inner surface 4. The outer layer 2 is made of stretchable breathable material, such as spandex, Elastomeric bands 5 are located along an upper edge 6 and a lower edge 7 of the undergarment 1. The elastomeric bands 5 assist in keeping the undergarment 1 in place while being around the upper leg or thigh a wearer, as shown further in FIG. 6. An inner layer 8 made of a non-slip material 9, such as silicone, rubber etc. in located on the inner surface 4 of the outer layer 2 of the undergarment 1. The inner layer 8 is preferably arranged in a predetermined pattern or design to allow the wearer's skin to make contact with both the inner layer 8 and the outer layer 2 of the undergarment 1, thereby allowing the skin to breathe. The non-slip material 9 of the inner layer 8 maintains a constant adherent traction with the skin of the wearer, thereby preventing the skin around the upper leg and thigh from stretching apart and the elastic fibers of the skin from tearing.

Finally, with reference to FIG. 6, a side view of multiple stretch mark prevention undergarments 1 of the present invention being worn is shown. The stretch mark prevention undergarments 1 include a bra 10 for preventing stretch marks on the breasts, an undergarment 1 for preventing stretch marks around on the stomach and lower torso, a pair of underwear 14 for preventing stretch arks on the buttocks and pelvic region and an undergarment 16 for preventing stretch marks on the upper leg and thigh. In addition, any or all of these units can be combined into a single garment.

It is to be understood that while a preferred embodiment of the invention is illustrated, it is not to be limited to the specific form or arrangement of parts herein described and shown. It will be apparent to those skilled in the art that various changes

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may be made without departing from the scope of the invention and the invention is not to be considered limited to what is shown and described in the specification and drawings.

I claim:

1. A stretch mark prevention garment for use in preventing stretch marks caused by expansion and stretching of skin on an wearer, said stretch mark prevention garment comprising:

- a substantially tubular shaped outer layer of material having an inner surface, an outer surface, upper edge and a  $_{10}$  lower edge;
- said substantially tubular shaped outer layer of material being made of a breathable material having elastomeric properties that provide an inward tension on a body of a wearer:
- an inner layer made of a non-slip material located on the inner surface of the outer layer that maintains a constant adherent traction with the skin of the wearer that in combination with the outer layer opposes any stretching forces on the wearer's skin that contribute to creation of the stretch marks;
- said inner layer being raised and projecting inward from the outer layer toward a wearer's skin; and
- said inner layer having spaces that expose the outer surface to the wearer's skin thereby allowing air to pass through the outer layer of breathable material and come into contact with the wearer's skin.
- 2. The stretch mark prevention garment of claim 1 wherein: said inner layer is made of silicone.
- 3. The stretch mark prevention garment of claim 1 wherein:  $_{30}$  said inner layer is made of rubber.
- 4. The stretch mark prevention garment of claim 1 further comprising:
- at least one elastomeric band located along the upper edge of the stretch mark prevention undergarment.
- 5. The stretch mark prevention garment of claim 1 further comprising:
  - at least one elastomeric band located along a lower edge of the stretch mark prevention undergarment.
    6. A stretch mark prevention garment for use in preventing 40
- stretch marks caused by expansion and stretching of skin on an wearer, said stretch

by expansion and stretching of skin on an wearer, said stretch mark prevention garment comprising:

- an outer layer of material having an inner surface and an outer surface that forms a bra;
- said bra having two cups and at least two straps joining the cups together so the bra may be worn around a wearer's chest while supporting the wearer's breasts in said cups;
- said outer layer of material being made of a breathable material having elastomeric properties that provide an inward tension on a body of a wearer;
- an inner layer made of a non-slip material located on the inner surface of the outer layer that maintains a constant adherent traction with the skin of the wearer that in combination with the outer layer opposes any stretching forces on the wearer's skin that contribute to creation of stretch marks;
- said inner layer being raised and projecting inward from the outer layer toward a wearer's skin; and
- said inner layer having spaces that expose the outer surface to the wearer's skin, thereby allowing air to pass through the outer layer of breathable material and come into contact with the wearer's skin.
- 7. The stretch mark prevention garment of claim 6 wherein: said inner layer is made of silicone.

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- 8. The stretch mark prevention garment of claim 6 wherein: said inner layer is made of rubber.
- 9. A stretch mark prevention garment for use in preventing stretch marks caused
- by expansion and stretching of skin on an wearer, said stretch mark prevention garment comprising:
  - an outer layer of material having an inner surface and an outer surface that forms a pair of underwear that is worn around a wearer's pelvic region;
  - said pair of underwear being substantially tubular in shape so as to cover a wearer's pubic region and buttocks;
  - said tubular shaped underwear being connected on a lower edge to create two leg holes;
  - said outer layer of material being made of a breathable material having elastomeric properties that provide an inward tension on a body of a wearer;
  - an inner layer made of a non-slip material located on the inner surface of the outer layer that maintains a constant adherent traction with the skin of the wearer that in combination with the outer layer opposes any stretching forces on the wearer's skin that contribute to creation of stretch marks;
  - said inner layer being raised and projecting inward from the outer layer toward a wearer's skin; and
  - said inner layer having spaces that expose the outer surface to the wearer's skin, thereby allowing air to pass through the outer layer of breathable material and come into contact with the wearer's skin.
- 10. The stretch mark prevention garment of claim 9 wherein:

said inner layer is made of silicone.

11. The stretch mark prevention garment of claim 9 wherein:

said inner layer is made of rubber.

- 12. The stretch mark prevention garment of claim 9 further comprising:
  - at least one elastomeric band located along an upper edge of the stretch mark prevention undergarment.
- 13. A method for preventing stretch marks caused by expansion and stretching of
  - skin on an wearer using a garment having an outer layer of material having an inner surface and an outer surface, said outer layer being made of a breathable material having elastomeric properties that provide an inward tension on a body of a wearer, an inner layer made of a non-slip material located on the inner surface of the outer layer, said inner layer being raised and projecting inward from the outer layer toward a wearer's skin, said inner layer having spaces that expose the outer surface to the wearer's skin, thereby allowing air to pass through the outer layer of breathable material and come into contact with the wearer's skin, said method comprising the steps of:
  - a. placing said garment on an individual so the outer layer completely surrounds a portion of the individual's body and the inner layer is making contact with the individual's skin;
  - said individual wearing the garment for a prolonged period of time; and
  - c. said inner layer maintaining a constant adherent traction with the skin of the individual that in combination with the outer layer opposes any stretching forces on the individual's skin that contribute to creation of stretch marks.

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